REVIEW OF CITY OF NEW BEDFORD COMENTS DATED 8/18/16
PHASE III REMEDIAL ACTION PLAN
FORMER AEROVOX FACILITY
NEW BEDFORD, MASSACHUSETTS
RTN 4-0601

1.0 INTRODUCTION

Massachusetts Department of Environmental Protection (MassDEP) requested that Nobis Engineering, Inc. (Nobis) review and provide technical comments regarding the City of New Bedford (City) comments on the Phase III Remedial Action Plan (RAP) prepared by Brown and Caldwell for the Former Aerovox Facility (the Site) and dated August 2016. Note that the City cover letter summarizes City's primary concerns, which are included in the comments provided by O'Reilly, Talbot & Okun Associates, Inc. (OTO). Therefore, the responses below are numbered the same as the OTO comments for ease of reference. Responses/technical comments are provided in italics below the comments

2.0 GENERAL COMMENTS

1. The evaluation criteria used in the Phase III screening of alternatives placed too much emphasis on short-term cost related parameters and insufficient emphasis on longer-term environmental protection and safety parameters. Also, it was not clear how scores for the different alternatives were calculated.

   Response: Nobis agrees. Note that Tables 5-1 through 5-4 had more details regarding the scoring of the alternatives, but a sub-breakdown of the factors in each individual rating and any weighting factors may be useful to determine the appropriate score.

2. The identification of remedial alternatives showed less creativity than might have been expected. Specifically, there was little development or analysis of the on-site consolidation options under OU1 or OU3.

   Response: On-site consolidation is a reasonable alternative for consideration. Note that Section 4.1.1.5 does mention soil excavation and on-site consolidation, as does Table 4.1 (page 2), but this was not apparently carried through in 4.2.1 and 4.2.3. Was this an oversight?

3. Little consideration was given to the long-term sustainability of the recommended in-situ entombment options selected for contaminated soils. Entombment in a location on a tidal river bank likely to directly experience severe storm events and rising sea levels seems very short sighted. Why didn't the risk characterization consider these hazards more directly?

   Response: Nobis agrees that relying on barriers indefinitely is inherently riskier than removing the material entirely, but the long-term risk of leaving material in place is low as long as the barrier is maintained. MassDEP guidance does not specify the relative weighting of short term vs. long term risk.

4. Regarding OU-2 beneath the Precix building, the selected remedy of monitored natural attenuation depends upon there being no changes to current use on the Precix property. Since there is no way for AVX to lock in this assumption with an AUL, this seems like an unrealistic remedial alternative. Additionally, Downgradient Property Status (DPS) has been filed for Precix (RTN 4-21348), as well as for Coyne Laundry (RTN 4-25563) located at 20 Howard Avenue – just north of the Precix property. These DPS filings indicate that the AVX site is the upgradient source responsible for the VOCs on their properties. The Phase III does not address these impacts that create ongoing liability for the City.

   Response: Note that in Section 3.3, the first preliminary remedial goal listed for OU2 is to "*Reduce CVOC groundwater and subslab soil gas concentrations*, to the extent feasible, and control these media as potential sources for vapor intrusion in GW2 areas" (emphasis added). It may be argued that the groundwater source control would be addressed by OU3B. However, the vertical containment barrier described for OU3B would be located solely on AVX property. The elevated shallow groundwater concentrations on the southern edge of the Precix property would not be addressed.

5. Regarding OU-3, given the magnitude of impact at the AVX site, the number and diversity of alternatives evaluated is insufficient. Specifically, the arguments on offer supporting the infeasibility of excavation with off-site removal are quite weak, and there was no analysis at all for the option of excavation with onsite consolidation in an upland location. The selected remedy is not appropriately protective of human health and/or the

environment for the following main reasons:

- PCBs, a key contaminant of concern, are inherently persistent in the environment and therefore more evaluation of the long-term sustainability of the remedy needs to be undertaken;
- The particular environmental sensitivity of the river bank on a tidal river has not been adequately considered. The remedy has not been demonstrated to be sustainable relative to climate change and sea level rise. The City of New Bedford evaluates the potential impacts of climate change and sea level rise for all of its proposed infrastructure projects – especially brownfields projects that directly abut the waterfront.
- In light of the enormous effort and resources dedicated to relocating and managing the contaminants historically released from this site and the resulting long-term loss of natural resources, a recommended remedial option that results in leaving over 15 tons of PCBs in place within feet of the river violates common sense. At the very least, the material should be moved to a more upland location where it could be completely encapsulated with impermeable material to ensure indefinite stability.

Response: Nobis' response to EPA's General Comment 2 noted that tidal fluctuations and hydraulic conditions in the Acushnet river should be discussed in the Phase III, and were not addressed. Nobis agrees that consolidation in an appropriately constructed on-site consolidation area away from the river would be more protective. Given that OU3A currently has three alternatives and other OUs have four alternatives, it is reasonable to include on-site consolidation as an additional (fourth) alternative for OU3A.

3.0 DETAILED COMMENTS

1. Section 3.1 "Operable Units" ends with a narrative list of what are later defined as the operable units for remediation. This list would be easier to understand if it were made into a numbered list.

Response: Agreed. (minor issue).

2. Remedial action technologies are described reasonably well in section 4.1, but the transition into the analysis of remedial action alternatives in section 4.2 is quite abrupt. The reader would benefit from a few sentences explaining how the alternatives were constructed from the technologies.

   Response: (minor issue).

3. Section 4.1.1.5 describes the "Soil Excavation and On-site Consolidation" technology describing it as being "retained for OU1 and OU3A because it is a technology that is readily available and reasonably likely to achieve a Permanent Solution". However, this alternative was not discussed in section 4.3.3.1 "OU3A – Aerovox Property Soils" and seems to have been discarded without explanation. Is there an explanation for why this technology was not carried through the analysis?

   Response: Nobis agrees. It seems reasonable to include a soil excavation and on-site consolidation technology for both OU1 and OU3A as a fourth remedial alternative.

4. Section 4.3.1 identifies and discusses remedial alternatives potentially applicable to the Titleist soils. OU1-1, OU1-2 and OU1-3 are scenarios that include varying amounts of soil excavation with either off-site disposal or on-site consolidation. It was not clear whether the detailed analysis of these alternatives included consideration of both off-site disposal and on-site consolidation or only one on these options. Can this be clarified?

   Response: See response to detailed comment 3 above.

5. For Alternatives OU3A-1 and OU3A-2 what portion of the 26,000 cubic yards excavated were estimated to contain PCB concentrations greater than 100 ppm?

   Response: For AVX to answer. Agree that this should be added to the Phase III.

6. Are there numerical tables available that support the calculations of soil volumes and estimated remediation costs?

   Response: For AVX to answer. Agree that this should be added to the Phase III.

7. In section 4.3.3 OU3, under the discussion of Alternative OU3B-1 there is a reference to Figure 4.3.3A-1 as showing the approximate configuration of the barrier wall. This reference was probably intended to be to Figure 4.3.3A-3.

   Response: AVX should verify/correct the figure references.

8. In recommending the in-situ semi-isolation of PCBs and CVOCs along the bank of the Acushnet River, it does not seem that adequate consideration has been given to either the known flux of groundwater through this area or the long-term sustainability of the containment structure. It is unlikely that any state or federal permitting authority would give consideration to a newly planned waste disposal site in such an environmentally volatile location. If there is an opportunity for other alternatives, such as the consolidation of high concentration wastes on-site, but further away from the river. If so such an alternative should be given more serious consideration. A central consolidation area could be designed with a low permeability bottom to limit the potential for groundwater infiltration, which would be a significant improvement over walling and capping the wastes where they now reside.

   Response: See response to detailed comment 3 above.